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Alternative pathways of nitric oxide formation in Lactobacilli: Evidence for nitric oxide synthase activity by EPR

Yarullina D., Il'inskaya O., Aganov A., Silkin N., Zverev D.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The study of the ability of Lactobacillus plantarum 8P-A3 to synthesize nitric oxide (NO) showed that this strain lacks nitrite reductase. However, analysis by the EPR method revealed the presence of nitric oxide synthase activity in this strain. Like mammalian nitric oxide synthase, lactobacillar NO synthase is involved in the formation of nitric oxide from L-arginine. L. plantarum 8P-A3 does not produce NO in the denitrification process. The regulatory role of NO in symbiotic bacteria is emphasixed. © Nauka/Interperiodica 2006.

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Keywords

EPR, Lactobacilli, Nitric oxide, NO synthase